Women in Subsistence Forestry

Cultural myths form a stumbling block.

By Louise P. Fortmann

The concept of forestry as the large-scale production of fiber for commercial use is outdated. In the United States, most professional foresters still support the concept, and when professionals go traveling, they take their professional baggage along. Thus, despite advances in multiple-use and social forestry, most forestry practiced by professionals in the developing world (including donor-funded projects) focuses on commercial timber production, often for export.

Forestry is not synonymous with timber production. In developing countries, commercial forestry is distinguishable from the subsistence forestry practiced by a vast majority of people. In subsistence forestry, trees and tree products are used for fuel, food, medicine, dyes, fodder, house and fence poles, agricultural implements, and raw materials for crafts. Both non-disruptive uses (gathering fallen produce) and consumptive uses (felling and burning trees to clear agricultural land) are included.

The land areas and economic values represented by subsistence forestry and the populations dependent on it often exceed those related to commercial forestry. Swidden agriculture—rotations of slash-and-burn and fallow use of forestland—is practiced by 300 million people on nearly half the land in the tropics. In parts of Indonesia, Dove (1983) estimates that swiddening can support 23 people per square kilometer in contrast to commercial logging, which supports only 9.4.

In India in the early 1970s, minor forest products, despite low prices, constituted 25 percent of the total value of forest production (Chambers 1983). From 1974 to 1977, Indian wood production averaged 9.8 million cubic meters per year of roundwood and 16.7 million cubic meters per year of fuelwood. In 1975, of all wood used in India, 90 percent was fuelwood (Burley 1982). The figures may underestimate fuelwood use and production, because much fuelwood never enters the formal sector. In Nigeria, the annual gross income per hectare for teak and gmelina plantations intercropped with agricultural crops exceeds that for pure commercial plantations of the same species (Finol-U 1978).

Whatever the product and whatever the use, subsistence forestry is practiced primarily by women. In a profession where masculine images predominate, this may be a startling fact. In the developing world, women are local forest experts, managers, and laborers. Consultation with local people, men and women, is essential before designing or undertaking forestry projects in developing countries.

Forest Users

Almost without exception, women are the primary collectors of fuelwood. In Nepal, women collect 78 percent of the fuel; women and girls combined account for 84 percent (Bennett 1981). In Tanzania, 90 percent of the fuelwood is collected by women (Wood et al. 1979). The exceptions to this rule occur when fuelwood becomes a commercial commodity, in which case men generally

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An extension worker in the Kakamega District demonstrates to women (some accompanied by their husbands) how to prepare fuelwood tree nurseries on their farms.

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collect and sell it, or when fuelwood is gathered from a great distance by animal-drawn carts or tractors. Men usually do the driving. Even then the bulk of the work may be done by women, who collect and pile the fuelwood to be picked up later by the men on tractors.

Women are the prime users of fuelwood. Cooking, cleaning, and child care require fuel for heating water. In many parts of India and Africa, women are also responsible for gathering tree fodder for livestock. Responsibility for family food and health makes women the prime users of minor forest products. Wild foods are collected from trees (fruit, nuts, leaves, roots, bark) or tree surfaces (snails, honey, caterpillars, birds' nests).

Women contribute to family incomes by selling minor forest products, by using them to produce crafts for sale, or by using fuelwood to cook foods sold in the market. In the mountains of the Dominican Republic, women weave and sell containers and chair backs from palm fibers. In the Egyptian governorate of Fayoum, women comprise 48 percent of the labor force in small wood-product enterprises (Davies et al. 1984).

Forest Experts

Why do forestry projects fail in developing countries? Some projects are designed with an inadequate information base. Because of extensive contact with the forest, local women may have a more detailed understanding of forest resources than local men or than foresters from other localities. Women in Sierra Leone could name 31 products that they gathered or made from the nearby bush, while men named only 8 (Hoskins 1984).

Local women on a field trip with Rocheleau (1985) in Kenya identified more than 20 species of useful woody shrubs and herbaceous plants with which foresters and agricultural extension agents were unfamiliar. Foresters who fail to consult women, the major users of wild plants, may inadvertently destroy an economically productive area that appears to be useless bush. In such cases, villagers have been known to return the favor by uprooting or burning down the forester’s plantation.

Women’s knowledge about tree qualities can be helpful in designing fuelwood plantations. Foresters are often partial to fast-growing exotics, but such species may not meet local requirements for fuelwood. Hoskins reports that at least one eucalyptus species was found to impart a “Vicks-Vapo-Rub” taste to food. Local women can tell which species provide a long-lasting, low heat, which provide a quick high heat, which smoke, and so on. With fuelwood used for cooking and lighting, such characteristics can be decisive. Without the right information, foresters could produce a plantation of quick-growing wood that does not meet local needs.

Forest Managers

By equating management with professional training, foresters may overlook the managerial function of women in subsistence forestry. Women assume these functions because misuse and mismanagement of forests affect them directly. When deforestation occurs, women must walk longer distances to collect fuelwood and fodder. It is often the fields of women that are damaged by landslides. It is the women who must search out new, more distant water sources as springs go dry. The alternative is to cook and clean with silt-laden water. Third World women bear the results of poor forest management in the form of a longer and more arduous work day.

Foresters have found women in developing countries practicing forms of forest management on their own. In many places, women have rules about fuel collection that expressly prohibit the cutting of green living trees. Dead and downed wood is preferred. In addition, certain species may be protected by custom or religious sanction. In parts of India, women water the peepul tree as an act of piety.

In Mali, a forester wanting to control erosion proposed building berms along a hillside and planting trees. When the site was inspected, little erosion was found. Local women, whom the forester had neglected to consult, had already terraced the area with stone walls, which they monitored after every rain to identify areas that were beginning to wash. The forester’s project would have destroyed the existing soil-conservation works and the gardens that the women were farming.

Women are often the ones who turn out for conservation projects. The Chipko (Embrace-a-Tree) movement in India depends on their support. Women have been at the forefront of the movement, confronting loggers to prevent deforestation and themselves undertaking reforestation. Also in India, female forest guards have been found effective in controlling women’s use of forest products. The Greenbelt Movement and many village soil- and water-conservation projects in Kenya are based almost entirely on women laborers.

Essential Laborers

In three projects in India, Commander (1984) found that 70 percent of the plantation and nursery work was destroyed by local people and others are ignored. When foresters fail to consult with local forest experts, projects are designed with an inadequate information base. Because of extensive contact with the forest, local women may have a more detailed understanding of forest resources than local men or than foresters from other localities. Women in

"Forestry is no longer limited to big trees and chain saws wielded by men."
performed by women. Women laborers are crucial in village forestry because new seedlings require water. In most parts of the world, water is collected and carried by women. Men are generally unwilling to take on this work. Much of the food in developing countries is grown by women; in Africa, almost all of it. If tree planting coincides with the normal cropping season, women may not be receptive to diverting their time from food production to watering trees. This is especially the case where they are not going to benefit from the trees. Projects are best designed after consultations with local women on work schedules.

Frequently in developing countries, women and women’s organizations are recruited as voluntary workers in projects from which they receive little benefit. If forestry projects are to succeed, participants must be beneficiaries. What can foresters do? The following factors need attention.

**Attitudes**—The cultural values and myths held by American foresters are a stumbling block to the integration of women in subsistence forestry. Fairfax and Vaux (1985) analyzed the failure of the American forestry profession to accept women in the profession in an equal and respected status. The issue needs addressing both here at home and in other parts of the world. The majority of professional foresters working in developing countries on donor-funded forestry projects are male. If these foresters feel that female professional colleagues do not belong in the woods at home, they are likely to devalue the competence of women in a different cultural setting.

Local cultural values and myths also impede the integration of women in forestry. These myths often fly in the face of readily observable fact. In Africa, forestry, including tree-planting, is often considered an activity unfit for women, yet boys and girls participate together in school tree-planting projects. Women who are considered too weak to plant or water a seedling put in hours hoeing the fields. Women who are considered the intellectual inferiors of men and unable to participate in decisions about village forestry provide the know-how in agriculture and forestry to feed their families. Women who are thought to have no interest in trees and no contact with trees plant them in their compounds.

Cultural impediments are not insurmountable, but myths need to be identified and ways found to work around them. School experiences are socializing a new generation of girls with new role models and expectations. In parts of Kenya, while women are forbidden to plant trees, certain species—including some used for fuelwood—are not considered trees and thus escape the prohibition.

**Property rights**—Forestry involves the right to use land and the right to use and plant trees. A person who has no right to land has nowhere to plant a tree. A person who does not have the right to use a tree has no incentive to plant it. A person who is forbidden to plant trees cannot participate in a forestry or agroforestry project. Women in developing countries commonly lack one or more of these rights.

In many places, women do not own or hold land. They obtain rights to land either through their fathers or through male partners who may or may not be their husbands. In parts of Latin America, women who have common-law husbands are explicitly forbidden by law from inheriting the man’s land. Even a woman who has legally married generally retains that status only at the will of her husband and in many places can lose her right to land should he decide to divorce or desert her or, in some cases, when he dies. In Peru, widows of cooperative members lose their right to gather fuel on cooperative land when their husbands die (Skaar et al. 1982).

Even where statutory law grants equal land rights to women, as in Kenya and Botswana, women are less likely than men to own land in their own right, in part because the land rights of women are often extinguished in the process of formal registration of title. Those women who do own land tend to have smaller acreages than men.

The answer for forestry may lie in “women’s niches,” land to which women have access even if they may not own it—the commons, the compound around the house, home gardens. In developing countries, women’s land rights are likely to differ from men’s. Women also have different rights to trees than men. Because of the household division of labor, women and men may use different parts of the same tree or different trees altogether. In many places, customary law recognizes these differing rights to trees or their parts. Thus certain fruit-bearing trees that grow only in the wild may be children’s trees. Other food-bearing trees may be women’s trees, while timber trees are men’s trees.

Among the Ibo of Nigeria, a woman traditionally had rights over certain trees that were marketable or bore marketable products and belonged to her husband. Depending on the ethnic group, she might have special rights to breadfruit or to the kernel but not the oil of the palm. Timber trees belonged to the husband, while the wife had the right to use food trees (Obi 1963). Such customary rights may affect the enthusiasm with which either gender views a given species. In Jamaica, soil-erosion projects failed because women exerted

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their influence to plant annual crops that they could market rather than tree crops that belonged to the men (Blaut et al. 1973).

In some places, planting a tree gives the planter rights to the land on which it is growing. For this reason, particularly in places where women are not allowed to own land, women may be forbidden to plant or inherit trees. Since women may be the only source of labor, this prohibition can pose a serious problem to the forester.

Credit—Where forestry projects require credit for buying seedlings or other inputs, women are often at a disadvantage. In countries such as Botswana, women are jural minors and cannot receive credit. Or they may lack the necessary collateral, most notably clear right to real property. Or they cannot receive credit. Or they may lack the necessary collateral, most notably clear right to real property. Or they may simply not be given credit no matter the law. Foresters cannot base projects on the assumption that existing modes of credit will serve women.

Professional Foresters

In no country are there near half the professional foresters women. It is not uncommon to hear a director or minister of forestry speak with pride of "our three women" or some similar low figure. The lack of women foresters in developing countries is especially serious because of the problems involved in forestry extension.

Women are the most effective communicators of new forestry information to other women. In many places, this principle is enforced by cultural prohibitions or restrictions on interactions between men and women other than spouses. In parts of rural Nepal, women speak primarily with other women and will not speak to men from outside their own community (Stewart 1984). Beliefs that women are technically incompetent impedes communication between male extension workers and women.

Some projects have proceeded on the belief that male extension workers or foresters can simply talk to the men and all will be well. The literature is replete with examples of failed projects based on this notion. It doesn't work because the men may never pass the information on to the women, or they may pass on the wrong information. Also, between a quarter and a third of rural households in the developing nations are headed by women. These households are even less likely to be reached by male extension agents.

Forestry is no longer limited to big trees and chain saws wielded by men. It is also small crooked trees; those standing alone in fields as well as in forests and plantations; indigenous species as well as exotics. Forestry is women picking up dead wood to cook the meals or lopping off branches to feed the goats. The fate of forestry projects in developing countries is decided not in air-conditioned offices in capital cities but in hot, dusty villages and not by bureaucrats but by local people and often by women. Subsistence forestry projects are failing at a time when the need for success is visible to the world. Our ability to respect the expertise of local people and to recognize their problems will signal the coming of age of our profession.

Literature Cited


